

**I CLAIM:**

- 1        1. An electronic circuit, comprising:
  - 2              circuit elements arranged in an array of rows and columns, said circuit
  - 3              elements being alterable in response to data stored therein and configured to shift data
  - 4              therebetween;
  - 5              a strobe line electrically coupled to ones of said circuit elements constituting a
  - 6              set to provide thereto a strobe signal to cause said ones of said circuit elements in said set to
  - 7              shift the data to additional ones of said circuit elements outside said set; and
  - 8              a strobe buffer connected between said strobe line and at least two of said
  - 9              circuit elements within said set to buffer the strobe signal on said strobe line and provide a
  - 10          buffered strobe signal to said at least two of said circuit elements.
- 1        2. The electronic circuit of Claim 1, wherein said strobe buffer operates to  
2          amplify the strobe signal received on said strobe line and to provide the amplified strobe  
3          signal as said buffered strobe signal.
- 1        3. The electronic circuit of Claim 1, wherein said set comprises ones of said  
2          circuit elements located in at least a portion of at least two adjacent rows of said array.
- 1        4. The electronic circuit of Claim 1, wherein said at least two of said circuit  
2          elements within said set are ones of said circuit elements located in two adjacent rows and  
3          two adjacent columns of said array.

1        5.     The electronic circuit of Claim 1, wherein said at least two of said circuit  
2 elements within said set are ones of said circuit elements located in two adjacent rows and  
3 four adjacent columns of said array.

1        6.     The electronic circuit of Claim 1, wherein:  
2                said strobe line is coupled to ones of said circuit elements located in a first pair  
3 of adjacent rows of said array to provide a first strobe signal to said ones of said circuit  
4 elements located in said first pair of adjacent rows; and  
5                said electronic circuit additionally comprises an additional strobe line coupled  
6 to ones of said circuit elements located in a second pair of adjacent rows of said array to  
7 provide a second strobe signal to said ones of said circuit elements located in said second pair  
8 of adjacent rows.

1        7.     The electronic circuit of Claim 6, wherein said first strobe signal is operable to  
2 shift data from said ones of said circuit elements in said first pair of adjacent rows to said  
3 ones of said circuit elements in said second pair of adjacent rows.

1        8.     The electronic circuit of Claim 1, wherein said strobe line is coupled to ones  
2 of said circuit elements in at least a portion of at least two adjacent columns of the array.

1        9.     The electronic circuit of Claim 1, wherein said strobe line is coupled to ones  
2 of said circuit elements in at least a portion of a single row or column of the array.

1        10.    The electronic circuit of Claim 1, wherein said strobe line is coupled to at least  
2 two groups of said circuit elements positioned non-orthogonally within the array with respect  
3 to one another in the array.

1        11.     The electronic circuit of Claim 1, further comprising:  
2              a data buffer connected to at least one end of the array of said circuit elements to  
3        provide the data to said circuit elements.

1        12.     The electronic circuit of Claim 11, wherein said data buffer is configured to  
2        load data into ones of said circuit elements in at least a portion of at least two rows of the  
3        array.

1        13.     The electronic circuit of Claim 11, wherein said data buffer comprises buffer  
2        elements, each of said buffer elements loading data into a respective portion of the array, said  
3        strobe line being within a second portion of said array and being connected to clock one of  
4        said buffer elements associated with a first portion of the array to load data into the first  
5        portion of the array.

1        14.     The electronic circuit of Claim 1, wherein said circuit elements are light  
2        modulation elements, said light modulation elements including:  
3              memory elements configured to store the data and connected to shift the data  
4        therebetween; and  
5              pixel controllers configured to alter the state of respective ones of said light  
6        modulation elements in response to the data stored in respective ones of the memory  
7        elements.

1        15.     The electronic circuit of Claim 14, wherein each of said memory elements  
2        further includes an output node electrically coupled to said respective pixel controller and to  
3        an input node of a non-adjacent one of said memory elements.

1           16.     The electronic circuit of Claim 14, wherein said strobe buffer prevents a short  
2     in one of said at least two memory elements from disabling the other of said at least two  
3     memory elements.

1           17.     The electronic circuit of Claim 14, wherein said light modulation elements  
2     comprise liquid crystal material.

1           18.     The electronic circuit of Claim 17, wherein:  
2                 the pixel controllers include pixel electrodes configured to receive the data  
3     stored in the respective memory elements, and  
4                 said light modulation elements collectively comprise a common electrode  
5     configured to receive a common electrode signal for said light modulation elements.

1           19.     The electronic circuit of Claim 14, wherein:  
2                 said light modulation elements additionally include micromirrors, and  
3                 the pixel controllers comprise electromechanical devices configured to control  
4     the state of said respective ones of said micromirrors in response to the data stored in the  
5     respective ones of said memory elements.

1           20.     The electronic circuit of Claim 1, wherein said electronic circuit additionally  
2     comprises:  
3                 additional strobe lines; and  
4                 a shift register electrically connected to said strobe lines to apply strobe  
5     signals sequentially thereto.

1           21.     The electronic circuit of Claim 20, wherein said shift register implements a  
2     ripple clock.

1           22. A method for performing photolithography, said method comprising:  
2                  loading data representing an image into light modulation elements arranged in  
3 sets;  
4                  altering ones of the light modulation elements in response to the data loaded  
5 thereinto to transfer an instance of the image onto a substrate;  
6                  applying to the light modulation elements in each one of said sets a respective  
7 strobe signal to shift the data to the light modulation elements in another of said sets, said  
8 applying comprising buffering the strobe signal among at least two of the light modulation  
9 elements within said one of said sets; and  
10                 altering ones of the light modulation elements in response to the data shifted  
11 thereinto to transfer another instance of the image onto the substrate.

1           23. The method of Claim 22, wherein each said altering further comprises:  
2                  applying a voltage in response to the data to change optical characteristics  
3 of the light modulation elements.

1           24. The method of Claim 22, wherein said applying further comprises:  
2                  amplifying the strobe signal; and  
3                  providing the amplified strobe signal to the light modulation elements in said  
4 one of said sets.

- 1           25. The method of Claim 22, wherein said applying further comprises:
  - 2                 utilizing a ripple clock to control the timing of said applying.
- 1           26. The method of Claim 22, further comprising:
  - 2                 providing the light modulation elements arranged in an array of rows and
  - 3                 columns, at least one of the sets comprising ones of the light modulation elements positioned
  - 4                 non-orthogonally in the array with respect to one another.
- 1           27. The method of Claim 22, wherein:
  - 2                 the method additionally comprises providing the light modulation elements
  - 3                 arranged in an array of rows and columns, at least one of said sets comprising ones of the
  - 4                 light modulation elements in at least a portion of at least two of the rows, and
  - 5                 said applying additionally comprises applying the strobe signal to shift the
  - 6                 data between ones of the light modulation elements in non-adjacent ones of the rows of the
  - 7                 array.
- 1           28. The method of Claim 22, wherein:
  - 2                 the method additionally comprises providing the light modulation elements
  - 3                 arranged in an array of rows and columns, at least one of said sets comprising ones of the
  - 4                 light modulation elements in at least a portion of at least two of the columns, and
  - 5                 said applying additionally comprises applying the strobe signal to shift the
  - 6                 data between ones of the light modulation elements in non-adjacent ones of the columns of
  - 7                 the array.

1           29.     The method of Claim 22, wherein:  
2                 the method additionally comprises providing the light modulation elements  
3     arranged in an array of rows and columns; and  
4                 said loading comprises loading the data from a data buffer into the light  
5     modulation elements at one end of the array.

1           30.     The method of Claim 29, wherein said loading comprises loading the data into  
2     ones of the light modulation elements in at least a portion of at least two rows of the array.

1           31.     The method of Claim 29, wherein said loading comprises loading the data into  
2     one of the light modulation elements in at least a portion of at least two columns of the array.

1           32.     The method of Claim 29, wherein said loading comprises loading data into a  
2     first section of the array in response to a strobe signal derived from the strobe signal used to  
3     shift data in a second section of the array.